UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CALVIN B. WARD

Appeal 2007-0071
Application 09/655,987
Technology Center 1700

Decided: February 28, 2007

Before CHARLES F. WARREN, CATHERINE Q. TIMM, and JEFFREY T. SMITH, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL

Applicant appeals to the Board from the decision of the Primary Examiner rejecting claims 1 through 8 and 19 through 28, all of the claims in the Application, for at least the second time in the non-final Office action mailed May 31, 2005. 35 U.S.C. §§ 6 and 134(a) (2002); 37 C.F.R. § 41.31(a) (2005).

We affirm the decision of the Primary Examiner with respect to claims 19 and 20, and reverse the decision with respect to all other claims.

Claims 1 and 19 illustrate Appellant's invention of a protective covering, and are representative of the claims on appeal:

1. A protective covering comprising:

a water-impermeable electrostatically charged sheet having a top and bottom surface; and

an absorbent layer having top and bottom surfaces, said bottom surface of said absorbent layer being bonded to said top surface of said electrostatically charged sheet, said absorbent layer being divided into a plurality of cells for containing liquid within the boundaries of said cells, said liquid being prevented from moving between said cells.

19. A protective covering for protecting an exposed surface:

a water-impermeable electrostatically charged sheet having a top and bottom surface; and

an absorbent layer having top and bottom surfaces, said bottom surface of said absorbent layer being in contact with said top surface of said electrostatically charged sheet.

The Examiner relies on the evidence in these references:

Schelhorn	US 3,342,613	Sep. 19, 1967
Glaug	US 5,151,091	Sep. 29, 1992
Hassenboehler	US 5,486,411	Jan. 23, 1996
Milani	US 5,916,204	Jun. 29, 1999
Chen	US 6,261,679 B1	Jul. 17, 2001

Appellant requests review of the following grounds of rejection under (Br.[1] 3-4), all advanced on appeal:

claims 19 and 20 under 35 U.S.C. § 102(b) as anticipated by Schelhorn (Answer 3);

claims 1 through 3, 7, 8, 19 through 21, and 25 through 28 under 35 U.S.C. § 103(a) as unpatentable over Glaug in view of Hassenboehler (id. 4-5);

[1] We consider the Brief filed April 27, 2006.

claims 5 and 23 under 35 U.S.C. § 103(a) as unpatentable over Glaug in view of Hassenboehler and further in view of Chen (*id.* 6);

claims 4 and 22 under 35 U.S.C. § 103(a) as unpatentable over Glaug in view of Hassenboehler and further in view of Milani (*id.* 6-7); and

claims 6 and 24 under 35 U.S.C. § 103(a) as unpatentable over Glaug in view of Hassenboehler and further in view of Chen and further in view of Milani (*id.* 7).

Appellant argues the claims in the first ground of rejection as a group (Br. 5 and 7-9). We decide this appeal on the basis of independent claim 19 with respect to the first ground of rejection and on independent claims 1 and 19, on which the other appealed claims depend, with respect to the other grounds of rejection depend. 37 C.F.R. § 41.37(c)(1)(vii) (2005).

The issue in the first ground of rejection is whether the Examiner has carried the burden of establishing a prima facie case of anticipation under § 102(b).

The Examiner contends claim 19 is anticipated by the disclosure in Schelhorn of a structure of a water-impermeable electrostatically charged sheet 10 in contact with absorbent paper layer 12 as depicted in FIG. 2, citing the text associated with FIG. 2 (Answer 3). Appellant contends no "teaching that sheet 10 is electrostatically charged" is found in Schelhorn (Br. 5). Appellant argues the disclosure at column 2, lines 21-29, that the "electrostatically treated or flame treated on one surface to improve the adhesive bonding characteristics of the surface," are treatments that "expose the surface of the sheet to a plasma that etches the surface" as "[t]here is no teaching that the plastic sheet is left with an electrostatic charge after such treatment" or "that the electrostatic charge remains after it is placed in contact with the absorbent layer" (Br. 5.). Appellant contends "plastic

sheets can be temporarily charged" which "rapidly dissipates on contact with the air or other materials," and "such corona treatments are used commercially to remove static charge from sheets of plastic" (*id.*). The Examiner replies "Appellant has not claimed a permanent charge that remains on the sheet at the end of treatment" and that "[b]ecause the treatment is on the film, electric charges are present within or on the film" (Answer 7-8).

The plain language of independent claim 19 specifies any manner of protective covering having any manner of water-impermeable sheet that is electrostatically charged to any extent, the top surface of which is in contact to any extent with the bottom surface of any manner of absorbent layer. As the Examiner argues, the claim does not require the electrostatically charged sheet to remain so for any particular period of time, only that it must be charged at some point when in contact with the absorbent layer. *See* Specification 3-4. *Cf. Exxon Chem. Pats., Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1555-58, 35 USPQ2d 1801, 1802-05 (Fed. Cir. 1995).[2]

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[2] *Exxon Chem. Pats.*, 64 F.3d at 1555-58, 1558, 35 USPQ2d at 1802-05, 1804:

> The specification as a whole, and the claims in particular, contain no temporal limitation to the term "composition." . . . The composition of claim 1, once its ingredients are mixed, is a composition existing during manufacture that is being used to produce the end product. Consequently, as properly interpreted, Exxon's claims are to a composition that contains the specified ingredients at any time from the moment at which the ingredients are mixed together. This interpretation of Exxon's claims preserves their identify as product claims, and recognizes as a matter of chemistry that the composition exists from the moment created.

We find Schelhorn discloses to one skilled in this art that preferred film 10 is a "low density polyethylene film . . . [which] is electrostatically treated or flame treated on one surface to improve the adhesive bonding characteristics of that surface" (Schelhorn col. 2, ll. 22-27). Schelhorn discloses that the preferred absorbent material 12 is "slightly creped wet strength paper towelling" (Schelhorn col. 2, ll. 37-39).

Appellant acknowledges "[m]ethods of charging . . . [plastic] sheets are well known in the art," including "placing the sheet in an electric field" and "corona discharge" (Specification 3:19-26).[3]

The claimed water-impermeable sheet must be electrostatically charged at least to some extent at some point when it is in contact with the absorbent layer, however temporary the electrostatically charged state may be. Thus, the claim limitations are satisfied if the electrostatic charge dissipates after the sheet is placed in contact with the absorbent layer. The Examiner has established a prima facie case of anticipation and the burden thus shifts to Appellant to established that the low density polyethylene film electrostatically treated or flame treated as described by Schelhorn does not result in an electrostatically charged sheet that retains the charge at least to some extent for any period of time when in contact with the slightly creped wet strength paper toweling. *See In re Spada*, 911 F.2d 705, 708-09,

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[3] *Cf. In re Nomiya*, 509 F.2d 566, 570-71, 571 n.5, 184 USPQ 607, 611, 611 n.4 (CCPA 1975) (Appellants' representations in their application should be accepted at face value as admissions that Figs. 1 and 2 may be considered "prior art" under § 103, conceding what is to be considered as prior art in determining obviousness of their improvement).

15 USPQ2d 1655, 1657-58 (Fed. Cir. 1990); *In re Best*, 562 F.2d 1252, 1255-56, 195 USPQ 430, 433-34 (CCPA 1977).

Appellant has not carried the burden. Appellant's contention that corona discharge has other effects on film overlooks his acknowledged use of corona discharge to impart an electrostatic charge in the prior art. Appellant does not address Schelhorn's disclosure that the sheet can also be "electrostatically treated," which Appellant also acknowledges as a known prior art method. *Cf. In re Graves*, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995), and cases cited therein (a reference anticipates the claimed method if the step that is not disclosed therein is within the knowledge of the skilled artisan).

Accordingly, based on our consideration of the totality of the record before us, we have weighed the evidence of anticipation found in Schelhorn with Appellant's countervailing evidence of and argument for non-anticipation and conclude that the claimed invention encompassed by appealed claims 19 and 20 would have been obvious anticipated as a matter of fact under 35 U.S.C. § 102(b).

The principal issue with respect to the remaining grounds of rejection is whether the Examiner has carried the burden of establishing a prima facie case of obviousness of claims 1 and 19 under § 103(a) over the combined teachings of Glaug and Hassenboehler, the basic combination of references in each of these grounds of rejection.

The Examiner contends Glaug would have taught water-impermeable sheet of nonwoven fabric 190 in FIG. 2, arguing "moisture-impermeable is equivalent to water-impermeable quality" (Answer 4). The Examiner finds

"Glaug does not teach said water-impermeable sheet is an electrostatically charged sheet," and Hassenboehler teaches "applying an electrostatic field to nonwoven webs as a treatment to improve filtration . . . [which is] used in diapers or hygiene products" (*id.* 5). The Examiner concludes it would have been obvious to modify Glaug's water-impermeable sheet with Hassenboehler's "electrostatically charged sheet because Hassenboehler teaches applying electrostatic charges to nonwovens used in diapers or hygiene products results in improving filtration or breathability" (*id.*).

Appellant contends "Hassenboehler teaches electrostatically charging a porous film to provide improved filtration of a medium passing through the film," which is thus "not water-impermeable" (Br. 6; original emphasis deleted). Appellant contends Glaug's sheet 190 "must be water impermeable to provide the desired barrier function" and "does not provide any filtration function" (*id.*). Appellant argue that there is no motivation to use Hassenboehler's electrostatically charged web as Glaug's water-impermeable sheet because the web would leak contrary to the purpose of the impermeable sheet, and the permeable sheet does not have a filtration function (*id.*).

The Examiner responds Glaug teaches a water-repellant nonwoven and Hassenboehler teaches an electrostatically charged nonwoven for improving "filtration efficiency of a variety of mediums" including "filtering dust particles or air" (Answer 8). The Examiner argues "Appellant's use of the term 'filtration' as argued does not limit the term to solely water filtration," thus "misconstruing the teachings of

Hassenboehler" which "do not limit filtration to any particular medium and includes all fluids, i.e., gas and liquids" (*id.*). The Examiner further states

> [a]greeably Hassenboehler teaches a nonwoven web that can have some degree of porosity, however, it should be noted that he also teaches the nonwoven web is ideally suitable for applications such as diapers, air filters, face masks, respirators, surgical masks, diapers and hygiene products . . . items where filtration efficiency is necessary, yet water-permeability is not necessarily desired.

Id. 9. The Examiner argues "the teachings of Hassenboehler provided direction to the skilled artisan as to what parameters are critical, namely improved filtering efficiency" (*id.*). On this basis, the Examiner concludes it would have been obvious "to electrostatically charge a nonwoven to arrive at Appellant's instant invention" even though the cited references do not specifically suggest combing the references, citing, inter alia, *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981) (*id.*).

The plain language of claims 1 and 19 specify a product having "a water-impermeable electrostatically charged sheet."

We find Glaug would have disclosed to one of ordinary skill in this art "moisture-impermeable barrier **190**" which "may be polyethylene or similar polymeric moisture resistant material or a nonwoven fabric which has been treated to render it moisture impermeable" (col. 5, ll. 39-50). We find Hassenboehler would have disclosed to this person a consolidated non-woven web prepared by post-treating a precursor web in a manner consolidating the web laterally to reduce pore size and further subjecting the web to an electrostatic filed to enhance filtration efficiency (Hassenboehler, e.g., abstract, col. 1, ll. 12-25, col. 3, ll. 24-51, col. 6, ll. 1-53, col. 8,

ll. 17-29, and col. 18, ll. 5-15). Hassenboehler discloses the resulting web is "ideally suited for filtration and absorption" in such uses as "filters, vacuum cleaner bags, protective apparel, face masks, and respirators" (Hassenboehler, e.g., col. 3, ll. 29-34, and col. 18, ll. 8-15). There is no disclosure in Hassenboehler that the web is moisture-impermeable.

The Examiner does not rely on the disclosure of either of Chen or Milani with respect to the materials for the Glaug's moisture-impermeable barrier 190.

We determine the Examiner has not established a prima facie case of obviousness of the claimed protective covering encompassed by claims 1 and 19 over the combined teachings of Glaug and Hassenboehler. Glaug specifically requires a moisture-impermeable barrier 190 and the Examiner has not established that Hassenboehler's electrostatically treated, consolidated non-woven web is in fact moisture-impermeable. Indeed, the Examiner's position that Hassenboehler's web is moisture-impermeable is contradicted by the disclosure of general utility areas for Hassenboehler's web in the context of the web characteristics "filtration and absorption," not for moisture impermeability, and the Examiner agrees that Hassenboehler's web has "some degree of porosity." Thus, we agree with Appellant that one of ordinary skill in this art would not have found in the disparate requirement for a moisture-impermeable barrier in Glaug and the disclosure of a web of improved filtration in Hassenboehler the motivation to initially combine the references. *See, e.g., In re Kahn*, 441 F.3d 977, 985-88, 78 USPQ2d 1329, 1334-37 (Fed. Cir. 2006); *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981)("The test for obviousness is not

whether . . . the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.").

Accordingly, in the absence of an established prima facie case of obviousness, we reverse the grounds of rejection of claims 1 through 8 and 19 through 28 under 35 U.S.C. § 103(a)

The Primary Examiner's decision is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2005).

AFFIRMED-IN-PART

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